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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
NATNAEL, PAULOS M	

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/083,011	RITZ ET AL.	
	Examiner	Art Unit	
	Paulos M. Natnael	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims **1-2** and **4-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cottle, U.S. 6,263,396.

Considering claim 1, Cottle et al disclose SDRAM 312, 32-bit DATA RAM 240, TC bus, MPEG Decoder 250, OSD processor 270, and microprocessor 280; the SDRAM 312 stores video/audio data as well as OSD data.

Cottle does not specifically discloses wherein the first memory is adapted to receive on-screen display data that is no longer being displayed from the second memory....

However, Cottle discloses that "...it is also with in the scope of the present invention to put the VBV buffer in optional memory on the extension buss 300 and thereby free up the SDRAM memory by the amount of the VBV buffer. This means that the SDRAM is allocated in a different manner than that of Table 7; that is the OSD memory size may be expanded or any of the other blocks expanded. Col. 18, lines 34-

40 As noted in Table 7, the SDRAM 312 is used to store system level tables, video and audio bit streams, reconstructed video images, OSD data, and video decoding codes, tables, and FIFOs. The internal Data RAM 240 stores temporary buffers, OSD window attributes, keys for conditional access, and other tables and buffers for firmware. column 18, 53-60.

Furthermore, most importantly, Cottle teaches that "...The protection block implements three levels of protection for the memory space of the ARM CPU 220. That is, firmware is allowed access to any memory, while the OS is allowed access to most memory; the application software (user mode) is only allowed access to restricted portions of the DRAM 312 and SRAM 240, but is allowed access to all other external memory." Therefore, it would have been obvious to the skilled in the art at the time the invention was made to readily realize the teaching of Cottle and implement the method of Cottle by using the software to access any memory in the system as necessary and move data from one memory to another as desired in order to free up some memory or otherwise make they system more efficient by freeing up memory and loading data into another one.

Considering claim 2, a video apparatus according to claim 1, wherein a CPU is connected to the main bus, is met by CP 280 (fig.16A, see also Fig. 1B).

Considering claim 4, a video apparatus according to claim 1 wherein the first memory is a Video RAM and wherein the second memory is a CPU RAM, are met by SDRAM 312 and data RAM 240, respectively (fig. 1B and 16A).

Considering claim 5, a video apparatus according to claim 1, wherein the digital decoder is connected to a digital front-end, is met by MPEG Decoder 250, Fig. 1B or 16A (see also Fig.1, 200 part of 100)

Considering claim 6, see rejection of claim 1;

Considering claim **7**, see rejection of claim 1;

Considering claim **8**, a process according to claim 7, with the further steps of :
a) issuing a request for the OSD circuit to use data in the first memory, is inherent because the CPU controls the system and may request/command to do so. (see Request Fig.16C)

b) transferring said OSD data to be used from first to second memory.

See rejection of claim 1

As to claim **9**, see rejection of claim 1;

Considering claim **10**, is met by DMA-transfer capability of Fig. 16A and the disclosure that the data transfer from TPP 210 to SDRAM 312 is done via DMA set up by the traffic controller (TC) 310. (see Table 8, for example)

Considering claim **11**, see rejection of claim 1.

Response to Arguments

3. Applicant's arguments filed 1/10/05 have been fully considered but they are not persuasive. Applicant argues that Cottle neither disclose nor suggest the type of OSD data and whether any transfer of the OSD data is to occur from memory to memory; The examiner submits that the claims do not recite the type of OSD data either. But of course Cottle teaches OSD data transfer from/to SDRAM 312 and DATA RAM 240. Further the applicant argues there is not indication nor any need that upon request for display data, data form any external memory would be transferred back to the SDRAM. The examiner submits Cottle discloses that "The OSD data may come from the user data in the bit stream or may be generated by an application executed on the ARM 220. Regardless of the source, the OSD data will be stored in the SDRAM 312 and managed by the ARM 220. However, there may be limited space in the SDRAM 312 for OSD. Applications that require large quantities of OSD data preferably store them in an external memory attached to the extension bus 300. Based on a request from a user application, the ARM 220 will turn the OSD function on and specify how and where the OSD will be mixed and displayed along with the normal video sequence.

The OSD data can be represented in one of the following forms: bitmap, graphics 4:4:4 component, CCIR 601 4:2:2 component, or just background color. A special, dedicated bitBLT hardware 272 expedites memory block moves between different windows. col. 10, lines 15-30. Argument therefore is unpersuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (571) 272-7354. The examiner can normally be reached on 10:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571)272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paulos M. Natnael
Primary Examiner
Art Unit 2614

June 10, 2005